



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/743,280
Source: 1 Fw 0
Date Processed by STIC: 10/8/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/743,280

DATE: 10/08/2004

TIME: 15:25:23

Input Set : A:\2488-1-008 Sequence listing US revised.txt
 Output Set: N:\CRF4\10082004\J743280.raw

3 <110> APPLICANT: Evolutec Limited
 5 <120> TITLE OF INVENTION: Ion Channel Modulators
 8 <130> FILE REFERENCE: 2488-1-008
 11 <140> CURRENT APPLICATION NUMBER: 10/743,280
 12 <141> CURRENT FILING DATE: 2003-12-22
 14 <150> PRIOR APPLICATION NUMBER: PCT/GB02/002919
 15 <151> PRIOR FILING DATE: 2002-06-21
 17 <150> PRIOR APPLICATION NUMBER: GB0115363.4
 18 <151> PRIOR FILING DATE: 2001-06-22
 20 <160> NUMBER OF SEQ ID NOS: 69
 22 <170> SOFTWARE: SeqWin99
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 18
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Artificial Sequence
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: PCR primer - T7
 32 <400> SEQUENCE: 1

33 taatacgact cactatag

18

35 <210> SEQ ID NO: 2

36 <211> LENGTH: 18

37 <212> TYPE: DNA

38 <213> ORGANISM: Artificial Sequence

40 <220> FEATURE:

41 <223> OTHER INFORMATION: PCR primer - T3

43 <400> SEQUENCE: 2

44 aattaaccct cactaaag

18

46 <210> SEQ ID NO: 3

47 <211> LENGTH: 20

48 <212> TYPE: DNA

49 <213> ORGANISM: Artificial Sequence

51 <220> FEATURE:

52 <223> OTHER INFORMATION: PCR primer - HF1

54 <400> SEQUENCE: 3

W--> 55 gaygartgyc cgggactg

h's must be explained (see p. 6)

20

57 <210> SEQ ID NO: 4

58 <211> LENGTH: 18

59 <212> TYPE: DNA

60 <213> ORGANISM: Artificial Sequence

62 <220> FEATURE:

63 <223> OTHER INFORMATION: PCR primer - HF2

65 <400> SEQUENCE: 4

W--> 66 gartgyccm gactg

18

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RAW SEQUENCE LISTING

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Input Set : A:\2488-1-008 Sequence listing US revised.txt
Output Set: N:\CRF4\10082004\J743280.raw

68 <210> SEQ ID NO: 5
69 <211> LENGTH: 17
70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: PCR primer - HF3
76 <400> SEQUENCE: 5
W--> 77 ~~acatttyggga~~ aycartg *P.6* 17
79 <210> SEQ ID NO: 6
80 <211> LENGTH: 20
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: PCR primer - HR1
87 <400> SEQUENCE: 6
88 aatacaacat attcaagtgg 20
90 <210> SEQ ID NO: 7
91 <211> LENGTH: 31
92 <212> TYPE: DNA
93 <213> ORGANISM: Artificial Sequence
95 <220> FEATURE:
96 <223> OTHER INFORMATION: PCR primer - HF6
98 <400> SEQUENCE: 7
99 gtacggatcc atgaaatttg ccttggttcag t 31
101 <210> SEQ ID NO: 8
102 <211> LENGTH: 52
103 <212> TYPE: DNA
104 <213> ORGANISM: Artificial Sequence
106 <220> FEATURE:
107 <223> OTHER INFORMATION: PCR primer - HR3
109 <400> SEQUENCE: 8
110 catgctgcag ttagtgatgg tgatgggtgat gacccttgca ctgcgccatca tg 52
112 <210> SEQ ID NO: 9
113 <211> LENGTH: 19
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial Sequence
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Primer - PFBR
120 <400> SEQUENCE: 9
121 gattatgatc ctctagtac 19
123 <210> SEQ ID NO: 10
124 <211> LENGTH: 20
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Primer - PFBF
131 <400> SEQUENCE: 10
132 tattccggat tattcatacc 20
134 <210> SEQ ID NO: 11

RAW SEQUENCE LISTING

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Input Set : A:\2488-1-008 Sequence listing US revised.txt
 Output Set: N:\CRF4\10082004\J743280.raw

135 <211> LENGTH: 76
 136 <212> TYPE: PRT
 137 <213> ORGANISM: Hybomitra bimaculata
 139 <220> FEATURE:
 140 <221> NAME/KEY: SIGNAL
 141 <222> LOCATION: 1-20
 143 <400> SEQUENCE: 11
 144 Met Lys Phe Ala Leu Phe Ser Val Leu Val Val Leu Leu Ile Ala Thr
 145 1 5 10 15
 147 Phe Val Ala Ala Asp Glu Cys Pro Arg Ile Cys Thr Ala Asp Tyr Arg
 148 20 25 30
 150 Pro Val Cys Gly Thr Pro Ser Gly Gly Arg Arg Ser Ala Asn Arg Thr
 151 35 40 45
 153 Phe Gly Asn Gln Cys Ser Leu Asn Ala His Asn Cys Leu Asn Lys Gly
 154 50 55 60
 156 Asp Thr Tyr Asp Lys Leu His Asp Gly Glu Cys Lys
 157 65 70 75

159 <210> SEQ ID NO: 12
 160 <211> LENGTH: 331
 161 <212> TYPE: DNA
 162 <213> ORGANISM: Hybomitra bimaculata
 164 <220> FEATURE:
 165 <221> NAME/KEY: CDS
 166 <222> LOCATION: 56-285
 168 <400> SEQUENCE: 12

W--> 169 gtttagttca gtttttatag taaccagttc taaaagttaa ataacatnaa tcaaaatgaa 60
 170 atttgccttg ttcagtgttt tagttgttct gctgattgca acatttggtg cggctgatga 120
 171 atgcccacgt atttgcacgg ctgactatag accggtatgc ggcaactccct ctggtgggtcg 180
 172 ccgaagtgc aacaggactt ttggaaacca atgtagcctc aacgcccaca actgcttgaa 240
 173 caagggagat acttacgaca aactgcatga tggcgagtgc aagtaaaaag gacaagtccc 300
 174 aggaatatta ttgactccac ttgaatatgt a 331

176 <210> SEQ ID NO: 13
 177 <211> LENGTH: 61
 178 <212> TYPE: PRT
 179 <213> ORGANISM: Artificial Sequence
 181 <220> FEATURE:
 182 <223> OTHER INFORMATION: Kazal-type inhibitor consensus
 184 <400> SEQUENCE: 13
 185 Cys Ser Arg Tyr Pro Asn Pro Thr Ser Lys Asp Gly Lys Leu Val Ala
 186 1 5 10 15
 188 Cys Pro Arg Glu Tyr Asp Pro Val Cys Gly Ser Asp Gly Val Thr Tyr
 189 20 25 30
 191 Ser Asn Glu Cys Glu Leu Lys Lys Ala Ala Cys Ala Glu Asn Val Glu
 192 35 40 45
 194 Gln Gly Thr Asn Ile Glu Lys Lys His Asp Gly Pro Cys
 195 50 55 60
 198 <210> SEQ ID NO: 14
 199 <211> LENGTH: 7
 200 <212> TYPE: PRT

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```

201 <213> ORGANISM: Hybomitra bimaculata
203 <400> SEQUENCE: 14
204 Pro Ser Gly Gly Arg Arg Ser
205 1 5
207 <210> SEQ ID NO: 15
208 <211> LENGTH: 43
209 <212> TYPE: PRT
210 <213> ORGANISM: Rhodnius prolixus
212 <400> SEQUENCE: 15
213 Cys Ala Cys Pro His Ala Leu His Arg Val Cys Gly Ser Asp Gly Glu
214 1 5 10 15
216 Thr Tyr Ser Asn Pro Cys Thr Leu Asn Val Ala Lys Phe Gly Lys Glu
217 20 25 30
219 Pro Glu Leu Val Lys Val His Asp Gly Pro Cys
220 35 40
222 <210> SEQ ID NO: 16
223 <211> LENGTH: 45
224 <212> TYPE: PRT
225 <213> ORGANISM: Rhodnius prolixus
227 <400> SEQUENCE: 16
228 Cys Gln Glu Cys Asp Gly Asp Glu Tyr Lys Pro Val Cys Gly Ser Asp
229 1 5 10 15
231 Asp Ile Thr Tyr Asp Asn Asn Cys Arg Leu Glu Cys Ala Ser Ile Ser
232 20 25 30
234 Ser Ser Pro Gly Val Glu Leu Lys His Glu Gly Pro Cys
235 35 40 45
237 <210> SEQ ID NO: 17
238 <211> LENGTH: 45
239 <212> TYPE: PRT
240 <213> ORGANISM: Anemonia sulcata
242 <400> SEQUENCE: 17
243 Cys Pro Leu Ile Cys Thr Met Gln Tyr Asp Pro Val Cys Gly Ser Asp
244 1 5 10 15
246 Gly Ile Thr Tyr Gly Asn Ala Cys Met Leu Leu Gly Ala Ser Cys Arg
247 20 25 30
249 Ser Asp Thr Pro Ile Glu Leu Val His Lys Gly Arg Cys
250 35 40 45
252 <210> SEQ ID NO: 18
253 <211> LENGTH: 46
254 <212> TYPE: PRT
255 <213> ORGANISM: Gallus gallus
257 <400> SEQUENCE: 18
258 Cys Lys Lys Thr Ala Cys Pro Val Val Val Ala Pro Val Cys Gly Ser
259 1 5 10 15
261 Asp Tyr Ser Thr Tyr Ser Asn Glu Cys Glu Leu Glu Lys Ala Gln Cys
262 20 25 30
264 Asn Gln Gln Arg Arg Ile Lys Val Ile Ser Lys Gly Pro Cys
265 35 40 45
267 <210> SEQ ID NO: 19

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RAW SEQUENCE LISTING

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Input Set : A:\2488-1-008 Sequence listing US revised.txt
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```

268 <211> LENGTH: 49
269 <212> TYPE: PRT
270 <213> ORGANISM: Homo sapiens
272 <400> SEQUENCE: 19
273 Cys Ser Gln Tyr Arg Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
274 1 5 10 15
276 Cys Gly Ser Asp Met Ser Thr Tyr Ala Asn Glu Cys Thr Leu Cys Met
277 20 25 30
279 Lys Ile Arg Glu Gly Gly His Asn Ile Lys Ile Ile Arg Asn Gly Pro
280 35 40 45
282 Cys
285 <210> SEQ ID NO: 20
286 <211> LENGTH: 45
287 <212> TYPE: PRT
288 <213> ORGANISM: Gallus gallus
290 <400> SEQUENCE: 20
291 Cys Asp Phe Thr Cys Leu Ala Val Pro Arg Ser Pro Val Cys Gly Ser
292 1 5 10 15
294 Asp Asp Val Thr Tyr Ala Asn Glu Cys Glu Leu Lys Lys Thr Arg Cys
295 20 25 30
297 Glu Lys Arg Gln Asn Leu Val Thr Ser Gln Gly Ala Cys
298 35 40 45
300 <210> SEQ ID NO: 21
301 <211> LENGTH: 46
302 <212> TYPE: PRT
303 <213> ORGANISM: Rattus norvegicus
305 <400> SEQUENCE: 21
306 Cys Asp Phe Ser Cys Gln Ser Val Pro Arg Ser Pro Val Cys Gly Ser
307 1 5 10 15
309 Asp Gly Val Thr Tyr Gly Thr Glu Cys Asp Leu Lys Lys Ala Arg Cys
310 20 25 30
312 Glu Ser Gln Gln Glu Leu Tyr Val Ala Ala Gln Gly Ala Cys
313 35 40 45
315 <210> SEQ ID NO: 22
316 <211> LENGTH: 47
317 <212> TYPE: PRT
318 <213> ORGANISM: Homo sapiens
320 <400> SEQUENCE: 22
321 Cys Ala Pro Asp Cys Ser Asn Ile Thr Trp Lys Gly Pro Val Cys Gly
322 1 5 10 15
324 Leu Asp Gly Lys Thr Tyr Arg Asn Glu Cys Ala Leu Leu Lys Ala Arg
325 20 25 30
327 Cys Lys Glu Gln Pro Glu Leu Glu Val Gln Tyr Gln Gly Arg Cys
328 35 40 45
330 <210> SEQ ID NO: 23
331 <211> LENGTH: 46
332 <212> TYPE: PRT
333 <213> ORGANISM: Gallus gallus
335 <400> SEQUENCE: 23

```

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/10/743,280

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Input Set : A:\2488-1-008 Sequence listing US revised.txt
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error explanation
Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:3; N Pos. 12,15,18

Seq#:4; N Pos. 9,12,15

Seq#:5; N Pos. 3,9

Seq#:12; N Pos. 48

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/743,280

DATE: 10/08/2004

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Input Set : A:\2488-1-008 Sequence listing US revised.txt
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L:55 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:3
L:55 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:3
L:55 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:66 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:4
L:66 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:4
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:77 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:5
L:77 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:5
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:169 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:12
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0